

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for forming at least a portion of a semiconductor device, said apparatus comprising:
 - a reaction chamber for heating a substrate on which the semiconductor device is to be formed;
 - a first source for supplying a first treating gas to said reaction chamber;
 - a first pumping system coupled to said reaction chamber for maintaining said reaction chamber at a first vacuum pressure during the supplying of said first treating gas;
 - a second source for supplying a second treating gas to said reaction chamber;
 - a second pumping system coupled to said reaction chamber for maintaining said reaction chamber at a second vacuum pressure during the supplying of said second treating gas, said second vacuum pressure being lower than said first vacuum pressure; and,
 - a third pumping system coupled to said reaction chamber for transitioning said reaction chamber between said first vacuum pressure and said second vacuum pressure.
2. (Original) An apparatus according to claim 1, wherein said reaction chamber, said first source and said first pumping system form at least part of a Low Pressure Chemical Vapor Deposition (LPCVD) system.
3. (Original) An apparatus according to claim 2, wherein said reaction chamber, said second source and said second pumping system form at least part of an Ultra High Vacuum-Chemical Vapor Deposition (UHV-CVD) system.
4. (Original) An apparatus according to claim 1, further comprising a load-lock chamber coupled to said reaction chamber for transferring said substrate between said reaction

BUR9-2000-0077-US1
09/683,088

chamber and an external ambient, said load-lock chamber also being coupled to a turbomolecular pump and a mechanical pump in series.

5. (Currently Amended) An apparatus according to claim 1, wherein said third pumping system is coupled to said reaction chamber and comprises a cryopump and a scroll pump arranged in series to remove contaminates from said reaction chamber after the supplying of said first treating gas.
6. (Original) An apparatus according to claim 3, further comprising a first pumping system coupled to one end of said reaction chamber and forming therewith a portion of said LPCVD system, and a second pumping system coupled to another end of said reaction chamber and forming therewith a portion of said UHV-CVD system; wherein said first pumping system is also coupled to a roots blower and a mechanical pump in series; and wherein said second pumping system is also coupled to a turbomolecular pump, a roots blower and a mechanical pump in series.
7. (Original) An apparatus according to claim 6, wherein said third pumping system is coupled to said reaction chamber and comprises a cryopump in series with a scroll pump for removing contaminants from said reaction chamber.
8. (Original) An apparatus according to claim 1, wherein said reaction chamber, said first source and said first pumping system form at least a part of a Low Pressure Chemical Vapor Deposition (LPCVD) system for prebaking said substrate in a hydrogen containing gas and for forming silicon containing layers on said substrate; and wherein said reaction chamber, said second source and said second pumping system form at least part of an Ultra High Vacuum-Chemical Vapor Deposition (UHV-CVD) system for forming germanium (Ge), silicon (Si) or SiGe containing layers on said substrate.

BUR9-2000-0077-US1
09/683,088

9. (Original) An apparatus according to claim 1, wherein said first pumping system comprises a roots blower and a mechanical pump in series.
10. (Original) An apparatus according to claim 1, wherein said second pumping system comprises a turbomolecular pump, a roots blower and a mechanical pump in series.
11. (Original) An apparatus according to claim 1, wherein said third pumping system comprises a cryopump and a scroll pump in series.
12. (Original) An apparatus according to claim 1, wherein said first pumping system comprises a roots blower and a mechanical pump in series; wherein said second pumping system comprises a turbomolecular pump, a roots blower and a mechanical pump in series; and wherein said first pumping system and said second pumping system share the same roots blower and mechanical pump.

Claims 13-20. (Canceled)

BUR9-2000-0077-US1
09/683,088

Page 4 of 8